## ABSTRACT

## SPEECH PROCESSING SYSTEM

A system is provided for detecting the presence of speech

5    within an input audio signal.   The system includes a
memory for storing a predetermined function which gives,
for a given set of audio signal values, a probability
density for parameters of a predetermined speech model
which is assumed to have generated the set of audio

10   signal values, the probability density defining, for a
given set of model parameter values, the probability that
the predetermined speech model has those parameter values
given that the speech model is assumed to have generated
the set of audio signal values.   The system applies a

15   current set of received signal values to the stored
probability density function and then draws samples from
it using a Gibbs sampler.   The system then analyses the
samples to determine a set parameter values
representative of the audio signal.   The system then

20   uses these parameter values to determine whether or not
speech is present within the audio signals.